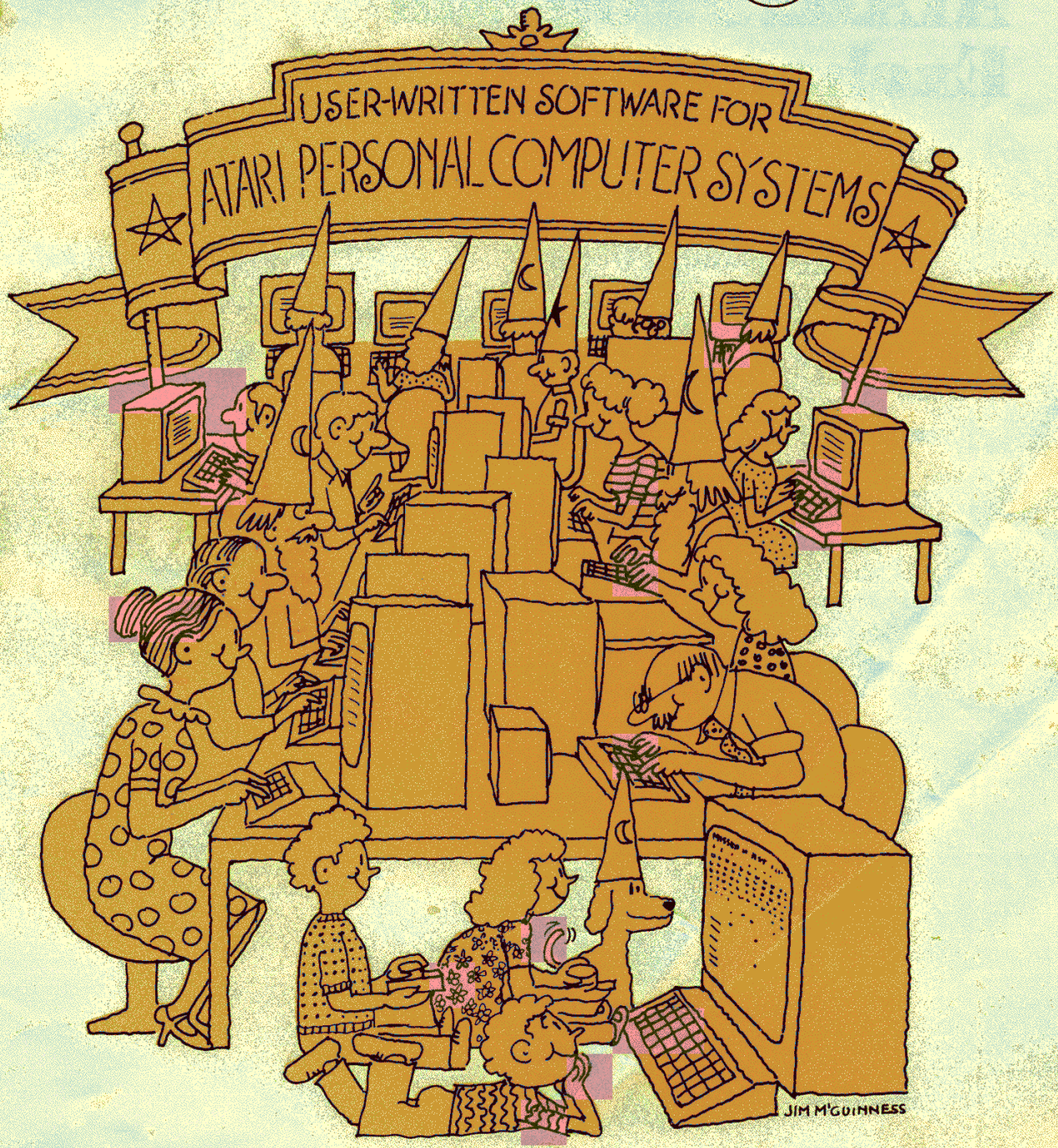
SOFTWARE CATALOG SUMMER EDITION—1981

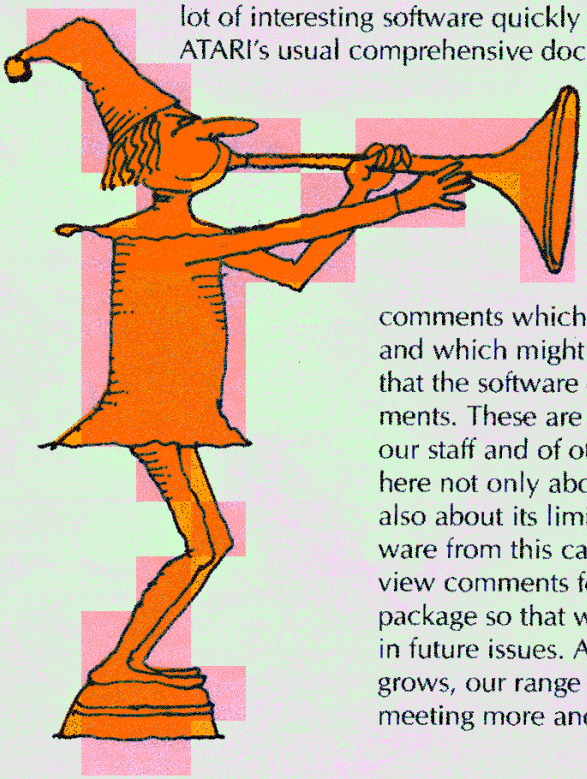
ATARI® PROGRAM exchange



Introducing the ATARI Program Exchange

ATARI offers a wide variety of useful and entertaining software for its ATARI 400/800™ Personal Computer Systems, and it is constantly developing more. Yet we've come across other interesting software deserving public recognition, and we know that many ATARI Personal Computer owners are writing still more software that would be welcome additions to your program library.

As a service to our users, we've created the ATARI Program Exchange, which will make such software available quickly and inexpensively. Our objective in becoming a central distributor of high-quality, imaginative software written by both professional programmers and hobbyists is to increase the usefulness of your ATARI Personal Computer. We'll keep costs down and speed production in several ways. We'll use simple packaging and we'll rely on user-written documentation that follows ATARI Program Exchange documentation guidelines. In addition, the support extended to ATARI's standard software won't be available for these programs. What we'll offer, then, is a lot of interesting software quickly and inexpensively, but without ATARI's usual comprehensive documentation and follow-up support.



Browsing through this catalog, you'll notice that some software has special appeal, whereas other software will interest almost everyone. We've pointed out in the recommended audience, descriptions, and review comments which software requires special knowledge and which might interest only certain users. Notice that the software descriptions include review comments. These are the composite evaluations both of our staff and of other users of the software. You'll read here not only about a program's good features, but also about its limitations. We encourage users of software from this catalog to fill out and mail us the review comments form accompanying each software package so that we can expand our software reviews in future issues. As the ATARI Program Exchange grows, our range of software offerings will also grow, meeting more and more of your needs.

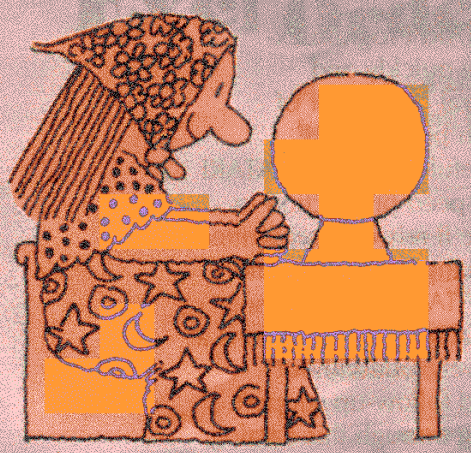
ATARI® is a Registered Trademark of Atari, Inc.

Hardware Available, too

At the request of many advanced hobbyists, we'll also be carrying some hard-to-find hardware items for ATARI Personal Computers. To start with, we're offering connectors and cartridge boards. We'll be expanding our hardware line in future issues. If there are other hardware items you'd like us to carry, drop us a line.

How the ATARI Program Exchange Works

You can purchase these products directly by mail, using the order form in this catalog. If you pay by VISA or Master Card, you can also phone in your order, using one of our toll-free numbers listed on the order form and in the back of this catalog. Please read all the ordering information before placing your order. These prices are subject to change without notice.



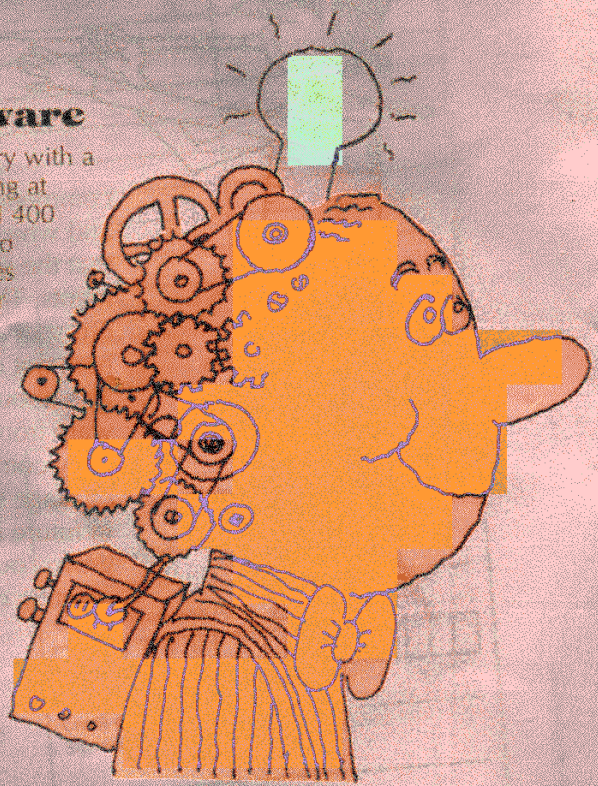
Future Catalog Mailings

You'll automatically receive the next issue of the ATARI Program Exchange software catalog if you've sent in your warranty card for your ATARI personal computer, or if you purchase anything from this issue. We'll try to distribute our catalog at no cost to you for as long as we can. If we're forced to charge a small fee in the future, we'll notify you of the change.

An Invitation to Submit Your Software

Because we want to stock our user-contributed software library with a large amount of high-quality software, we're interested in looking at imaginative, well-written programs you've created for the ATARI 400 or ATARI 800 Personal Computer. If we accept your program into our library, you'll receive a quarterly payment, based on the sales of your software. We'll also publish your name as author of your software in our catalog and in the program itself, as well as in its accompanying documentation. As a service to ATARI computer users' groups we'll distribute their software collections at low cost, with the quarterly payment going to the users' group.

If you've turned a good idea into software you'd like us to consider offering through the ATARI Program Exchange, please call our toll-free number, 800/538-1862 (or 800/672-1850 for calls within California). We'll send you a program submission packet, which includes the documentation guidelines to be followed when writing the user manual that must accompany your program at the time of submission. ATARI users' groups interested in submitting their program libraries to the ATARI Program Exchange for further distribution should also use one of these toll-free numbers to request library submission information.



Announcing Our Quarterly User-written Software Contest

As further inducement to giving us the opportunity to look over your best software, we'll hold a quarterly ATARI Program Exchange Software Contest. When we accept your program into our user-contributed software library, you automatically become a contestant in one of these contests. (Software submitted by ATARI employees or their families and software collections submitted by users' groups are not eligible for these contests.)

We'll be awarding ATARI hardware and software products as first, second, and third prizes in four categories, based on program quality and creativity:

1 Consumer (including Entertainment/Personal Interest & Development)

2 Education

3 Business & Professional Applications/Personal Finance & Record Keeping

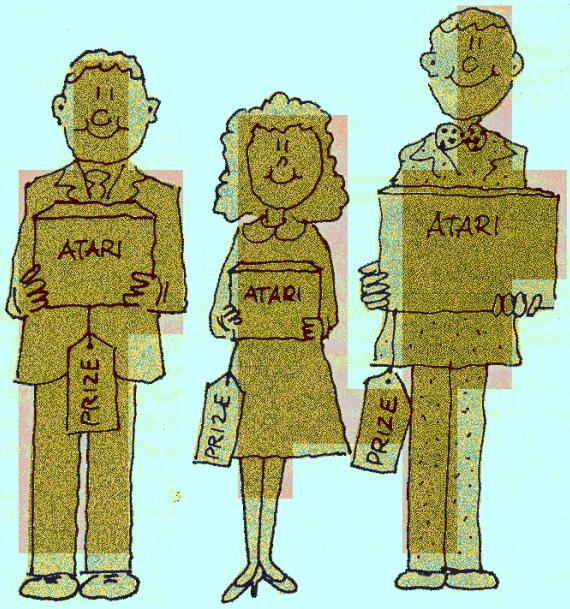
4 System Software

To be eligible for a quarterly contest, your program must be *accepted* by the ATARI Program Exchange on or before the acceptance deadline. The quarterly contest coincides with publication of the ATARI Program Exchange software catalog, and the program acceptance deadline is two months prior to a catalog's publication date. The 1981 acceptance deadlines are:

July 1, 1981 for the fall 1981 issue
October 1, 1981 for the winter 1981 issue and for the 1981 grand prize

Because some programs might require revisions before we accept them, we recommend that you submit your program as early as possible within the quarter. Programs are eligible for one contest only, and for the annual grand prize. Updates and revisions to previously accepted programs aren't eligible for another contest.

Contest judges are ATARI staff members, whose decisions are final. We'll consider only completely documented and debugged software that is accompanied by our program submission form and by the signed contract supplied by the ATARI Program Exchange. The program submission packet contains complete contest information. (This contest offer is void where prohibited by law.)



This Is Just the Beginning

We hope this initial selection of software and hardware will add to the usefulness and enjoyment you receive from your ATARI Personal Computer. We also hope it will lead to other users' contributing their best software to the program exchange for their own benefit as well as for the benefit of other ATARI Personal Computer owners.

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Ordering Information

*Indicates trademark of Atari, Inc.

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Personal Finance & Record Keeping

NEWSPAPER ROUTE MANAGEMENT PROGRAM

by John R. Powers, III

Recommended for preteenagers-adults/ Written in BASIC

This program can help you manage a newspaper route by simplifying your record-keeping chores and helping you plan your route. It supports daily or Sunday routes of as many as 100 subscriptions. You can enter, update, and delete customers' addresses and class of service to reflect subscription changes. And you can locate your customers on a computer-displayed map to help you plan your route. NEWSPAPER ROUTE MANAGEMENT PROGRAM lets you create and display a variety of customer lists alphabetized by street address. If you have a printer attached, you can also print this list, as well as print payment collection lists and customer receipts.

Review Comments:

"This program requires knowledge of BASIC. You'll need to modify the BASIC code to tailor such elements as street names and map coordinates to your route. A preteenage user might need an adult's help with this initial program coding. With this done, the program is easy to use, one reason being its multilevel menu approach."

"To make full use of this program, you need a printer."

REQUIRES:
40K RAM (for ATARI 810 diskette)
ATARI BASIC Language Cartridge
ATARI 810™ Disk Drive
ATARI Joystick Controller

OPTIONAL:
ATARI 825™ Printer or equivalent printer

ORDER INFORMATION:
$17.95 diskette for ATARI 810
(Order No. APX-20013)

THE COMPUTERIZED CARD FILE

by John R. Powers, III

(Recommended for teenagers-adults/ Written in BASIC)

THE COMPUTERIZED CARD FILE is a very basic system for storing, updating, and retrieving information organized into records or "cards". With the help of THE COMPUTERIZED CARD FILE, you write BASIC statements to define the data fields in your cards and to create the display format and any display labels for these cards. The program uses these BASIC statements to customize the program to your application. THE COMPUTERIZED CARD FILE can handle any card size, number of fields, field size, and field arrangement. It's also flexible as to the size and location of a card's access key, which you use to locate one or more cards if you don't want to page through the entire data file. You can also search with partial keys. The program controls against the creation of faulty keys to prevent inaccessible cards from occurring in your data file. THE COMPUTERIZED CARD FILE uses a menu from which you may select any of these functions:

FETCH DATA (to load stored data file into RAM)
SAVE DATA (to store data file on diskette)

CREATE RECORDS (to enter new cards)
DELETE RECORDS (to remove stored cards)
EDIT RECORDS (to update fields in stored cards)
SCAN RECORDS (to page through the data file)
FILE DESCRIPTION (to see a summary of your data file's characteristics)

Review Comments:

"This program requires knowledge of BASIC. You must lay out a card's fields, a display format, and display labels via defining string and numeric variables, constants, and DATA statements, using the formats and formulae in the program's listing. A sample card file helps illustrate how to go about this task."

"Because the software uses a binary search to store and retrieve cards, response time is very fast."

"This is a very simple card filing system. For example, you can search only on the record's key, which can be a severe limitation for some applications, and you can't redefine which field is the file key. In addition, you can update only one card at a time, even if you need to make the same change to several cards."

"This program requires all cards to be in RAM at once."

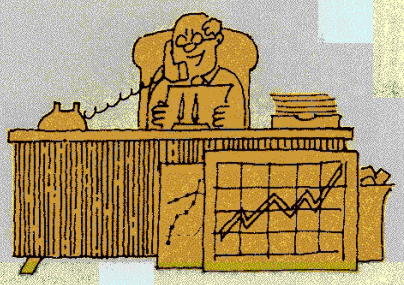
REQUIRES:
40K RAM (for ATARI 810 diskette)
ATARI BASIC Language Cartridge
ATARI 810 Disk Drive

OPTIONAL:
ATARI printer or equivalent printer

ORDER INFORMATION:
$12.95 diskette for ATARI 810
(Order No. APX-20014)

2

Business & Professional Applications



(THE COMPUTERIZED CARD FILE - see PERSONAL FINANCE & RECORD KEEPING for description)

TEXT FORMATTER (FORMS)

by Dale Yocum

(Recommended for teenagers-adults, depending on text editor/Written in BASIC)

How often have you typed a report, letter, set of tables, or other text and then wished you'd chosen a different layout? When were you last satisfied with the wording and layout of a first draft? If you're still relying on your typewriter, revising your document means having to retype your text. But with FORMS and a text editor you can change page height, line spacing, line length, left-hand margin, paragraph indention, running top title, and more, as often as you like without having to re-key your text. You control text formatting by entering simple codes along with your text. For example, you enter ".C" before text you want to center. You use FORMS along with a text editor to key in your FORMS codes and text and to store your data file. You can use almost any editor that produces a text file on cassette or diskette, with or without line numbers. The ATARI Assembler Editor Cartridge (CXL4003) works well. When you're ready to print your text, FORMS asks whether you want to print your entire document (data file) or only selected pages, which is convenient when you revise only one section or a few pages of a large document. And FORMS accommodates both separate sheets and continuous forms.

Review Comments:

"Anyone familiar with DEC's formatter, RUNOFF, or the University of Waterloo's formatter, SCRIPT, can easily master FORMS."

"Users accustomed to the more sophisticated text formatters won't be able to get as many special effects with FORMS. For example, FORMS has no way to right justify, its only bottom title is a centered arabic page number, it can't easily create hanging indentions or multicolumn text, it has no hyphenation rules or exception dictionary, and it has no indexing or footnote capability."

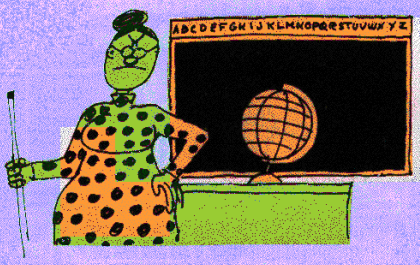
"FORMS produces a very ragged right margin when you use it with the proportional character set. Tabular text also becomes misaligned in this character mode."

REQUIRES:
16K RAM (for cassette)
24K RAM (for ATARI 810 diskette)
ATARI BASIC Language Cartridge
A compatible text editor
ATARI 810 Disk Drive or ATARI 410™ Program Recorder
ATARI printer or equivalent printer

ORDER INFORMATION:
$14.95 cassette (Order No. APX-10002)
$17.95 diskette for ATARI 810 (Order No. APX-20002)

3

Education



(EXTENDED WSFN – see SYSTEM SOFTWARE for description)

LEMONADE
by Bob Polaro

(Recommended for all ages/Written in BASIC)

Have you dreamed about starting your own small business? LEMONADE tests your business acumen! Your lemonade stand could make you rich. On the other hand, you could go bankrupt. And if you do, the game's over. The object is to amass a fortune by weighing your production and advertising costs against anticipated sales. Your costs vary as the economy fluctuates. Other conditions, like heat waves and road construction, can affect your sales. But, like the real world, you don't see their effect until after you've committed your assets.

LEMONADE has become a classic computer game for teaching basic economic concepts, such as the effect on demand of setting prices, the impact of advertising, and the influence of general events on business ventures. Each day, the lemonade stand owner notes his available assets and considers any known conditions, which display on the video screen. Then the owner decides how many glasses to prepare, how many advertising signs to make at a given cost, and how much to charge per glass. The outcome of each day's decisions determines the assets available in subsequent days for production and advertising.

Review Comments:
"Very easy to use. Also very easy to go bankrupt if you're greedy."

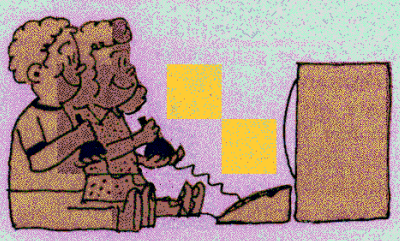
LEMONADE doesn't do justice to the ATARI computer's graphics capability, and it uses minimal sound effects. The information displays in various colors, but no illustrations enliven the game. Therefore, it might not hold the attention of young players, unless they're serious budding entrepreneurs, or unless they use the program as part of an overall lesson."

REQUIRES:
16K RAM (for cassette)
16K RAM (for ATARI 810 diskette)
ATARI BASIC Language Cartridge
ATARI 810 Disk Drive or ATARI 410 Program Recorder

ORDER INFORMATION:
$9.95 cassette (Order No. APX-10001)
$12.95 diskette for ATARI 810 (Order No. APX-20001)

4

Entertainment



(LEMONADE – see EDUCATION for description)
(MUGWUMP – see EDUCATION for description)

AVALANCHE*
by Dennis Koble

(Recommended for all ages/Written in machine language)

You've been mountain climbing all day. You're ahead of the other climbers and you're almost at the summit when you hear a rumbling noise. You glance up — headed straight your way is an avalanche of rocks! You decide to sacrifice yourself to save the others, so you start deflecting the rocks with whatever is at hand. The impact of the rocks gradually wears away the number and size of your "shields", but the rocks keep coming, smaller and faster. If you manage to ward off all the rocks, you face yet another avalanche. The goal is to score as many points as you can by deflecting the rocks before they hit the ground. You can play AVALANCHE alone or you can pit your skill against an opponent. Four bonus levels challenge your ever-increasing skill.

***AVALANCHE** is a trademark of Atari, Inc.

Review Comments:
"Great use of the ATARI computer's colors, graphics, and sound. Patterned after the ATARI arcade game of the same name."

"This game really appeals to all ages — it's simple enough for young players, but it challenges experienced players via its bonus levels and its stepped-up pace as the avalanche progresses. Makes a great party game."

REQUIRES:
16K RAM (for cassette)
16K RAM (for ATARI 810 diskette)
ATARI 810 Disk Drive or ATARI 410 Program Recorder
ATARI Paddle Controllers

ORDER INFORMATION:
$14.95 cassette (Order No. APX-10003)
$17.95 diskette for ATARI 810 (Order No. APX-20003)

MUGWUMP
by Bob Polaro

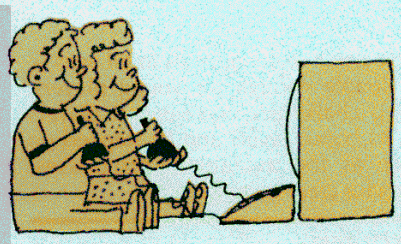
(Recommended for all ages/Written in BASIC)

Four smug mugwumps are hiding in a ten-by-ten grid. Your objective is to locate all four within ten turns. You search by entering numbers representing horizontal and vertical coordinates on the grid. After each pair of numbers you enter, the computer tells you your distance from each hidden mugwump. Any mugwump you discover yelps and flashes on the screen in hurt surprise. Younger players can become familiar with the coordinate system through playing MUGWUMP; older players can put their trigonometry to work to locate the elusive mythical beasts.

Review Comments:
"This game is rather static and soundless, but it might interest gamesters who like using mathematics or intuition to find hidden objects."

REQUIRES:
8K RAM (for cassette)
16K RAM (for ATARI 810 diskette)
ATARI BASIC Language Cartridge
ATARI 810 Disk Drive or ATARI 410 Program Recorder

ORDER INFORMATION:
$9.95 cassette (Order No. APX-10005)
$12.95 diskette for ATARI 810 (Order No. APX-20005)



OUTLAW*/HOWITZER

(Recommended for all ages/Written in machine language)

Here are two games to show off your marksmanship. In OUTLAW you square off against another cowboy, who has you cornered in the desert. Fortunately for you, you can hide behind cactuses to elude his bullets. You use your joystick controller to chase your opponent and to take aim, then to scamper out of range as he fires back at you. You can run him all over the desert, but he's a real sharpshooter, so you'll be doing some fancy footwork to get him before he gets you. The first to score ten hits is the winner.

In HOWITZER your tank confronts the enemy tank across a river, which neither of you can cross. You hear your tank rumble as you use your joystick to maneuver around the field. But you can't count on the trees to protect you from enemy fire. Each cannonball you fire that misses its target leaves a hole in the field, but you'll know when either of you has scored a hit — the earth shakes and the tank explodes. The first to score ten hits is the winner.

You can play OUTLAW or HOWITZER against the computer or against another player. To compensate for different levels of skill, each side can play with or without handicaps — each game has eight variations.

Review Comments:
"Both games use colorful, action-packed graphics and sound effects, which make these games appealing to players of all ages and levels of skill."

***OUTLAW** is a registered trademark of Atari, Inc.

REQUIRES:
24K RAM (for cassette)
24K RAM (for ATARI 810 diskette)
ATARI 810 Disk Drive or ATARI 410 Program Recorder
ATARI Joystick Controller(s)

ORDER INFORMATION:
$14.95 cassette (Order No. APX-10004)
$17.95 diskette for ATARI 810 (Order No. APX-20004)

PRESCHOOL GAMES

by Bob Polaro

Recommended for preschoolers and young children/Written in BASIC)

This set of eight games for young children introduces some basic game concepts. A couple of the games resemble traditional children's games. Others develop such skills as pattern recognition and memory recall. Another resembles a popular preschool toy. Played with a keyboard controller, the games are:

TIC-TAC-TOE — complete a row or column first and you win; play against the computer or against another player.

TOUCH-ME*— try to reproduce a sequence of tones the computer plays; build up to an 8- or 16-note sequence.

PIANO — compose a tune and then have the computer play it back.

COUNTING — count the number of notes the computer plays, or enter a number and have the computer play a tune with that number of notes.

BATTLE — guess the secret location of your opponent's battleship before he guesses yours and you win; play against the computer or against another player.

ROCKSCIS — pick "rock," "scissors," or "paper," and then let the computer or another player try to guess your choice.

MUSICAL — after the computer plays musical chairs, match the position of the chair taken away with the corresponding button on your keyboard controller.

SOUNDBOX — press a button to produce a noise, such as chirping, exploding, drilling, or splashing.

***TOUCH-ME** is a trademark of Atari, Inc.

Review Comments:
"A child will usually need instructions from someone the first time through most of these games."

"These games use crude graphics — not nearly as elaborate as the ATARI computer's graphics capability can support."

REQUIRES:
16K RAM (for ATARI 810 diskette)
ATARI BASIC Language Cartridge
ATARI 810 Disk Drive
ATARI Keyboard Controller(s)

ORDER INFORMATION:
$12.95 diskette for ATARI 810
(Order No. APX-20006)

ROMAN CHECKERS
by Bob Polaro

(Recommended for all ages/Written in BASIC)

Here's a board game where planning pays off. You win if you have more points than your opponent when the last square on an eight-by-eight grid is filled. You gain points by flanking each of your opponent's checkers on two sides — vertically, horizontally, or diagonally — with your own checkers. A substantial lead can melt away when surrounded checkers are surrounded again from another direction. One strategically placed checker can cause several opposition checkers to flip over, earning one player points at the other's expense. You can play against the computer or against another player, and you can select from three levels of difficulty.

Review Comments:
"The scoring reversals keep the outcome of the game in doubt right up to the end."

"Experienced board players will probably find this game insufficiently challenging."

"Owing to the colors used, this game isn't suitable for black and white display screens."

REQUIRES:
32K RAM (for cassette)
32K RAM (for ATARI 810 diskette)
ATARI BASIC Language Cartridge
ATARI 810 Disk Drive or ATARI 410 Program Recorder

OPTIONAL:
ATARI Joystick Controller(s)

ORDER INFORMATION:
$9.95 cassette (Order No. APX-10007)
$12.95 diskette for ATARI 810(Order No. APX-20007)

SPACE TREK
by Bob Polaro

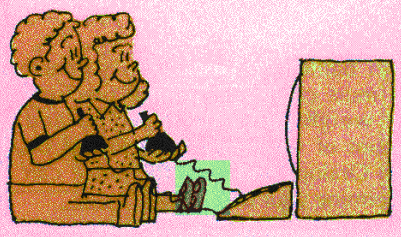
Recommended for teenagers-adults/ Written in BASIC)

It's you against the Oralops! As captain of the U.S.S. Starship, your mission is to destroy the enemy Oralop spaceships that are threatening the galaxy. Of course, you have limited fuel and only so many stardates in which to complete your assignment. The galaxy is divided into 64 quadrants arranged in an eight-by-eight grid; each quadrant contains 64 sectors, also arranged in eight-by-eight grids. You guide your starship around the galaxy in search of Oralops by entering course coordinates and warp factors, which can be positive integers or decimal values. To see your position relative to the elusive Oralops, you can call for a long-range sensor scan, which shows the number of Oralops, starbases, and stars in each quadrant adjacent to your current position, or you can call for a galactic report, which summarizes these conditions for all the quadrants in the galaxy that border quadrants you've occupied. When you find an Oralop, you can release your photon torpedoes (if they're operable), or you can fire your phasers to deplete his shield power. If you miss, though, the Oralop fires back, reducing your defensive shield energy. Then you'll need to find a starbase to recharge your energy and restock your photon torpedoes. It's a tough battle to win, and to succeed you must chart your course precisely and weigh carefully the type and amount of weaponry you expend on each Oralop. And even then, fate can undermine your best efforts.

Review Comments:
"This is a strategy game short on action and long on numerical and positional analysis. It's unlikely to interest children, but spacewar fans will probably enjoy this version of the classic computer Star Trek game."

REQUIRES:
24K RAM (for cassette)
32K RAM (for ATARI 810 diskette)
ATARI BASIC Language Cartridge
ATARI 810 Disk Drive or ATARI 410 Program Recorder

ORDER INFORMATION:
$11.95 cassette (Order No. APX-10015)
$14.95 diskette for ATARI 810
(Order No. APX-20015)



BASIC ADVENTURES

Here are a variety of BASIC ADVENTURES to exercise your skill at conceptualizing, or for those inclined towards the concrete, at map drawing. Adventures are maze games in which you're given descriptions of your current surroundings; these games use text only — no sound, motion, color, or graphics. Each version places you in a different setting and assigns you a different goal, such as escaping from an evil wizard or finding a treasure. You move around by entering one-letter directional commands like "U" for "up" and "E" for "east". In your meanderings, you encounter objects that you can use in some way to help you accomplish your task or to protect you from impending dangers. You use these objects by entering two-word commands such as "TAKE KEY" and "READ BOOK". If you're stumped, you can ask for hints, and you can also use one-letter commands to recall a description of your immediate surroundings or a list of any objects you've brought along with you. In addition, each version has secret words, which, when used at the right time and in the right place, effect wondrous results. The versions are as follows:

CASTLE

by Robert Zdybel

(Recommended for preteenagers-adults/ Written in BASIC)

You must find an escape route out of an enchanted castle in which you've been imprisoned by a wrathful wizard. You can go from bell towers to dungeons looking for an exit, but don't pass up chances to bring along such helpful objects as amulets and swords or you'll be unprepared when you finally see a way out.

Review Comments:
"This version will interest beginning-to-intermediate Adventure players. It has imaginative, often humorous text."

REQUIRES:
24K RAM (for ATARI 810 diskette)
ATARI BASIC Language Cartridge
ATARI 810 Disk Drive

ORDER INFORMATION:
$14.95 diskette for ATARI 810
(Order No. APX-20019)

WIZARD'S GOLD

(Recommended for preteenagers-adults/ Written in BASIC)

You're in another magical castle, but this time your task is to find a hidden bar of gold and return it to its rightful place. You start in the wizard's bedroom, but the gold is hidden in the dark catacombs underneath the castle. The wizard will use all his wiles to keep you from finding it.

Review Comments:
"This is a typical version of Adventure . . . and just as typically frustrating."

"The text layout is rough compared to that in the other Adventures."

REQUIRES:
24K RAM (for ATARI 810 diskette)
ATARI BASIC Language Cartridge
ATARI 810 Disk Drive

ORDER INFORMATION:
$14.95 diskette for ATARI 810
(Order No. APX-20020)

SLEAZY ADVENTURE
by Bob Smith

(Recommended for teenagers-adults/ Written in BASIC)

Your friend has purchased a sailboat, currently moored in Thailand. Never one to pass up an opportunity for a quick buck or new experiences, you volunteer to sail it home for him, thinking you can use it to import contraband. Of course, the more valuables you take, the greater the risks you face. Upon landing at the Bangkok International Airport, your first task is to find the sailboat. But this is the mysterious Orient, and nothing is what it seems.

Review Comments:
"This version is fun because it takes place in several environments and it requires shifts in command syntax."

REQUIRES:
32K RAM (for ATARI 810 diskette)
ATARI BASIC Language Cartridge
ATARI 810 Disk Drive

ORDER INFORMATION:
$14.95 diskette for ATARI 810
(Order No. APX-20021)

ALIEN EGG
by Robert Zdybel

(Recommended for preteenagers-adults/ Written in BASIC)

You're the sole survivor on a spaceship that has landed on another planet. Your mission is to find a specimen of the inhabitants — an alien egg — and return it to your ship's biology lab. But exiting your spacecraft requires extensive preparation in itself.

Review Comments:
"This version has many humorous comments. Watch out for the bottomless pit!"

REQUIRES:
24K RAM (for ATARI 810 diskette)
ATARI BASIC Language Cartridge
ATARI 810 Disk Drive

ORDER INFORMATION:
$14.95 diskette for ATARI 810
(Order No. APX-20022)

CHINESE PUZZLE
by Dennis Koble

Recommended for teenagers-adults/ Written in BASIC)

This one is for jigsaw puzzle fans and for those who relish a real Adventure workout. In this diabolical version, you've been drugged by a Chinese madman. Upon regaining consciousness, you find yourself locked in a suite of rooms from which you try desperately to escape. Unlike most Adventures, the rooms hold no helpful hints. You'll need patience, endurance, and an understanding of the clever Oriental mind to win your freedom.

Review Comments:
"This game is somewhat different from the standard Adventures in that it's mostly maze-oriented, containing few objects or actions. Getting trapped in wrap-around rooms can be very frustrating."

REQUIRES:
24K RAM (for ATARI 810 diskette)
ATARI BASIC Language Cartridge
ATARI 810 Disk Drive

ORDER INFORMATION:
$14.95 diskette for ATARI 810
(Order No. APX-20023)

SULTAN'S PALACE
by Dennis Koble

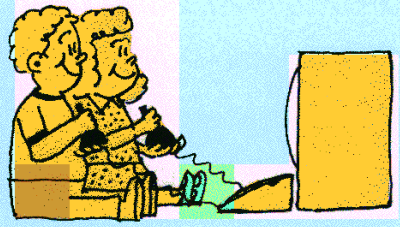
(Recommended for adults/Written in BASIC)

The notorious Sultan Abdul has abducted the sheik's daughter, Princess Fatima, and is holding her captive while he arranges for their wedding. Gallantly, you accept the distraught father's plea to rescue the princess from Abdul's pleasure palace. But to rescue her, first you must find her. Your will power will be sorely tested if you happen to wander into certain of the Sultan's special rooms. This version is for adults and mature teenagers.

Review Comments:
"This is an R-rated Adventure. The verbs are the usual ones, but how they combine with certain objects makes the result quite provocative. This version also has many humorous comments."

REQUIRES:
32K RAM (for ATARI 810 diskette)
ATARI BASIC Language Cartridge
ATARI 810 Disk Drive

ORDER INFORMATION:
$14.95 diskette for ATARI 810
(Order No. APX-20025)



ANTHILL
by Steve Bittrolff

(Recommended for all ages/Written in BASIC)

After playing this two-player game, you'll watch your step around anthills. You and a friend are at the bottom of a subterranean anthill. The first to reach the surface wins, but it's not simply a matter of tracing the quickest path and using your joystick to follow it to the top. This anthill is at a construction site, and so paths open and close in the maze as the earth shifts under the weight of the heavy machinery. In addition, a frantic blue ant scurries around the maze trying to keep you from deserting. If it zaps you, you're thrown back to the bottom of the heap, and your race begins anew.

Review Comments:
"This is an interesting variation on maze games using a joystick controller to move around. You need patience while a path opens up, but you also need speed to beat your opponent *and* the dynamic maze, which might re-close the path before you can get through it."

"The game could be more imaginative. For example, it would be fun to hear the ants scurry around, bounce against closed pathways, and thud back to the bottom of the maze."

"Owing to the colors used, the bad blue ant is hard to see on a black and white video screen. However, you can still play the game, since you know when you've been zapped because of where you land."

REQUIRES:
8K RAM (for cassette)
16K RAM (for ATARI 810 diskette)
ATARI BASIC Language Cartridge
ATARI 810 Disk Drive or ATARI 410 Program Recorder
ATARI Joystick Controllers

ORDER INFORMATION:
$9.95 cassette (Order No. APX-10024)
$12.95 diskette for ATARI 810 (Order No. APX-20024)

CENTURION
by Robert Zdybel

(Recommended for teenagers-adults/ Written in BASIC)

Here's a real-time, fast-moving war game. You're a centurion warrior in Roman times with ten legions to direct against ten hordes of barbarians. The battle takes place on an 11-by-18 field of hexagons, some of which represent impassable rough terrain. Each of your units is assigned a number and is positioned in a hexagon. But the location of each barbarian unit remains invisible until you move to within three hexagons of one, whence the unit's number displays in its hexagon. You direct your legions by calling up the number of the legion you need and then entering as many as four numbers to represent sequential directional moves. Then you go on to direct other legions as the computer carries out your previous instructions. The tribesmen, of course, are also intent on winning, and so they're constantly repositioning themselves to outmaneuver your legions. Thus, you must recall your legions to revise their strategic movements as the tribesmen move around. Throughout the battle, troop strength wanes as legionnaires and tribesmen become exhausted or scared, but they gradually recover — if they're not conquered in the meantime. If you can see an enemy unit, then you can request a display of its effective and disrupted strength to help you decide whether to attack. You also have some crack units not available to the barbarians: one adds its strength to aid another unit, two move twice as fast as normal, and two defend at twice the normal strength.

You must evaluate all these factors to vanquish the barbarians. If you succeed, the Roman Senate awards you silver pieces commensurate with your victory. CENTURION has ten levels of difficulty, to accommodate novice and experienced warriors alike.

Review Comments:
"This game calls for quick thinking and constant checking of both the graphic and the data displays. The displays do a commendable job of clearly tracking the large amount of information and number of movements involved in playing CENTURION."

"The game's human interface is weak. For example, it can become confused if the user makes a mistake, and it's also very slow at times."

"The level of strategy is too elementary for advanced war game players."

REQUIRES:
16K RAM (for cassette)
24K RAM (for ATARI 810 diskette)
ATARI BASIC Language Cartridge
ATARI 810 Disk Drive or ATARI 410 Program Recorder

ORDER INFORMATION:
$11.95 cassette (Order No. APX-10016)
$14.95 diskette for ATARI 810
(Order No. APX-20016)

TACT TREK

by Robert Zdybel

(Recommended for teenagers-adults/ Written in BASIC)

In TACT TREK you don't whiz around the galaxy destroying dozens of enemy spaceships. Instead, this is a tactical-level combat game. A trained captain pilots each well-armed enemy starship. But deep in interstellar space, you, a battle-scarred veteran starship commander, expertly track the enemy and fire your weapons to save the galaxy. You must outmaneuver and then destroy as many as three enemy starships. After you issue a command to change course, launch a torpedo, and the like, the enemy issues a similar command. Then the computer executes these commands while the starships move through space, and you see ten "scans" of the resulting action. It's a battle of wits in a race against some very clever enemies.

Review Comments:
"There's a lot of information to keep track of in this game, which you do via a command window and a damage report. This game is very slow and very intellectual. Its level of strategy will probably appeal to those patient souls who enjoy such pastimes as chess-by-mail."

REQUIRES:
24K RAM (for cassette)
32K RAM (for ATARI 810 diskette)
ATARI BASIC Language Cartridge
ATARI 810 Disk Drive or ATARI 410 Program Recorder

ORDER INFORMATION:
$11.95 cassette (Order No. APX-10031)
$14.95 diskette for ATARI 810
(Order No. APX-20031)

COMEDY DISKETTE

(Recommended for all ages/Written in BASIC)

For those who appreciate the lighter side of computers, we offer a melange of humor and whimsy. Lest we spoil the fun by telling too much, we merely hint here at what's in store for you. The subtitles are:

BURP — for those who yearn for a little variety in their READY prompt
ACHTUNG — for those who can recall their fear of what could happen if they touched the wrong key on the keyboard
SOCRATES — for those who can use a fresh supply of aphorisms to guide and comfort them in this complex age
NERDQUIZ — for those who want to test their NERD quotient
DOS.SIS — for those who take the DOS menu selections for granted
FPFSQUAD — for those who can't face any more debugging sessions or hardware failures

Review Comments:
"These routines have something for everyone. Some use clever graphics and sound effects, some stress textual humor, and some combine all three elements."

REQUIRES:
32K RAM (for ATARI 810 diskette)
ATARI BASIC Language Cartridge
ATARI 810 Disk Drive

ORDER INFORMATION:
$14.95 diskette for ATARI 810
(Order No. APX-20027)

GRAPHICS/SOUND DEMONSTRATION

(Recommended for all ages/Written in BASIC *and machine language)*

This diskette shows off the ATARI computers' outstanding graphics and sound effects capabilities. An ATARI personal computer can produce 128 different colors (16 colors, each at 8 levels of brightness). Use these colors in myriad shapes, patterns, and sequences and just try to imagine the range of special effects possible! This diskette illustrates but a few of the many two- and three-dimensional effects you can achieve with an ATARI computer. The diskette also contains a scrolling map that demonstrates the ATARI computers' fine scrolling capability; the assembler source code is included to let you see how it works. By studying the source code of any of these programs, you can adapt the techniques to your own applications.

Review Comments:
"Even on a black and white video screen these graphics are impressive; on a color screen, they're stunning!"

REQUIRES:
32K RAM (for ATARI 810 diskette)
ATARI BASIC Language Cartridge
ATARI 810 Disk Drive
ATARI Joystick Controller
ATARI Paddle Controllers

OPTIONAL:
ATARI Assembler Editor Cartridge

ORDER INFORMATION:
$14.95 diskette for ATARI 810
(Order No. APX-20028)

5

System Software

FIG FORTH implemented on the ATARI 400/800 computer
by Steve Calfee

(Recommended for advanced programmers/Written in machine language)

For several reasons, the FORTH language has been gaining in popularity in recent years. Many advanced programmers find that FORTH is a good development tool for applications requiring high speed and low memory consumption, such as process control, systems software, and games. For these kinds of jobs, a FORTH program often runs 10 to 100 times faster than does a BASIC program. FORTH also requires much less memory than does BASIC to perform the same function. Because FORTH wasn't designed for floating point calculations (although they're possible),it isn't normally used for business applications, number crunching, and the like. However, it fills the gap nicely between BASIC and machine language programming. On the one hand, programming in FORTH is usually easier than programming in machine language, but FORTH programs don't run as fast as machine programs do. On the other hand, programming in FORTH is sometimes slower than programming in BASIC, but FORTH programs run faster than BASIC programs do.

The utilities included on the FORTH diskette are: (1) MACRO assembler, (2) Screen Editor, and (3) Output Formatter for structured FORTH listings. We offer this version of FORTH courtesy of the FORTH Interest Group, P.O. Box 1105, San Carlos, CA 94070. This implementation greatly expands FORTH to include facilities to access the graphics and I/O control on ATARI computers.

Review Comments:
"This is a very comprehensive implementation of FORTH. ATARI has used it internally for well over a year; hence, it's well debugged. FORTH is also quite compact — it's one of the few things that can run (small programs) on a 16K disk system. A 24K disk system can do a lot with FORTH."

"FORTH is *not* for beginners. It requires a solid background in programming before it makes much sense. The accompanying documentation is preliminary and rough. If you're just starting out with FORTH, you'll need to acquire one of the introductory books recommended in the documentation."

"This version of FORTH doesn't use the standard DOS file structure. Therefore, a FORTH file can't be read by a BASIC program or vice versa. Also, FORTH diskettes can't be copied or examined by standard DOS; however, FORTH can handle these functions itself through a user-written program."

REQUIRES:
16K RAM (for ATARI 810 diskette)
ATARI 810 Disk Drive

OPTIONAL:
All ATARI peripherals and accessories

ORDER INFORMATION:
$39.95 diskette for ATARI 810
Call for availability

SOUND EDITOR

by Bob Smith

(Recommended for programmers/Written in BASIC

SOUND EDITOR helps you create short sounds, such as clangs, croaks, rattles, and other such nonsense. It's not appropriate for developing tunes, jingles, or sounds lasting longer than one second. SOUND EDITOR uses a graphical approach. It divides a one-second sound into 20 segments. Using a joystick controller, you specify the volume, frequency, and distortion in each segment. The utility displays a plot of these parameters, one at a time. You can play back your new sound at any time and then refine it. And you can store your sounds on diskette or cassette and recall them later. You can edit two of the four sound channels with this program and play them simultaneously. Then you can incorporate the finished sounds into your BASIC or machine language programs.

Review Comments:

"SOUND EDITOR offers a lot of potential for the interested hobbyist. As utilities go, this one is fun. Its graphical presentation of the sound parameters makes it easy to understand what comprises a sound."

"The program limits you to only two sound channels at a time. For most sounds, however, this isn't a problem."

REQUIRES:

16K RAM (for cassette)
24K RAM (for ATARI 810 diskette)
ATARI BASIC Language Cartridge
ATARI 810 Disk Drive or ATARI 410 Program Recorder
ATARI Joystick Controller

ORDER INFORMATION:

$14.95 cassette (Order No. APX-10018)
$17.95 diskette for ATARI 810
(Order No. APX-20018)

BASIC PROGRAM COMPRESSOR (MASHER)

by Dale Yocum and modified by Jerry White

(Recommended for BASIC programmers/Written in BASIC)

If you've ever worked for hours on a program just to have it run out of memory, this utility is for you. MASHER compresses your BASIC programs into as little memory as possible. You tell MASHER the name of your program and how many variables you've used (our BASIC Cross-Reference Utility, described elsewhere in this section, tells you this if you don't feel like counting). Then you relax while MASHER (1) removes REMark statements, (2) converts frequently used constants to variables, and (3) packs together multiple short lines to form longer ones.

MASHER requires you to leave lines 0–9 and variable names Q0–Q999 available for use in defining variables to replace frequently used constants. Depending on how compressed your initial code is, MASHER can reduce the required RAM by as much as 50%. Used wisely, it can save you a lot of work (and RAM).

Review Comments:

"MASHER is handy to have in your library because it not only makes your programs smaller, but also makes them run faster. We've often been able to reduce the memory required for a program by 20% with MASHER."

"Be prepared to wait a *long* time for MASHER to convert a program. Conversions can take anywhere from a few minutes to many hours, depending on the length of your program. Be sure your disk drive and diskettes are in perfect operating condition before using MASHER, which is quite fussy about these things."

"MASHER can make mistakes. You might find that some compressed programs will require some 'touching up' afterwards. But this is usually no big task."

"A MASHed program will be very hard to read, because all REMarks have been removed and lines have been compressed. Therefore, you'll probably want to MASH a program only after you've debugged it."

REQUIRES:

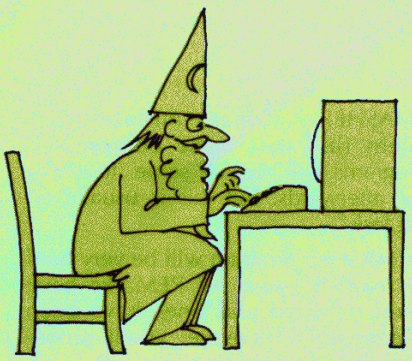
32K RAM (for ATARI 810 diskette)
ATARI BASIC Language Cartridge
ATARI 810 Disk Drive

OPTIONAL:

BASIC CROSS-REFERENCE UTILITY (XREF)
(Order No. APX-20009 for ATARI 810 diskette)
VARIABLE CHANGER
(Order No. APX-20012 for ATARI 810 diskette)

ORDER INFORMATION:

$14.95 diskette for ATARI 810
(Order No. APX-20008)



BASIC CROSS-REFERENCE UTLITY (XREF)

by Lane Winner

(Recommended for BASIC *programmers/Written in* BASIC*)*

XREF is a utility program that gives you some important information about your BASIC program. First, it tells you the number of variables you've used, which is helpful in large programs, where you might be approaching the 128-variable limit. (It's also necessary information for running the MASHER program, described elsewhere in this section.) Second, it lists the names of all your variables. Third, and most important, it tells you the lines in which you've used these variables. This information can be valuable for debugging complex BASIC programs.

Review Comments:

"XREF is a handy utility to have in your library. In several instances, it has saved us hours of frustrating debugging. It's also useful when trying to squeeze out seldom-used variables because it's like a program road map."

"XREF's error trapping could be better. For example, it might stop and display a BASIC error if it doesn't like your input or your file. It's also rather slow — a large program might take 15 minutes to cross-reference."

REQUIRES:
40K RAM (for ATARI 810 diskette)
ATARI BASIC Language Cartridge
ATARI 810 Disk Drive

OPTIONAL:
ATARI printer

ORDER INFORMATION:
$14.95 diskette for ATARI 810
(Order No. APX-20009)

BASIC RENUMBER UTILITY (RENUM)

(Recommended for BASIC *programmers/Written in* BASIC*)*

Finally, we have a utility to renumber your BASIC programs. RENUM renumbers your statements using the increment value you specify, and it adjusts your GOTO, IF/THEN, GOSUB, and other statements to reflect the new line numbers. RENUM asks you for your new starting line number, the range of lines you want renumbered, and your desired increment value. If you don't care, it supplies default values. You can also use RENUM to move blocks of code from one area of your program to another.

Review Comments:

"This program has been around for a long time within ATARI. No one is singing its praises, but you can say one thing: it works. We hope someone out there will submit a better renumbering utility for a later issue."

"The main problems with RENUM are speed and convenience. First, you must save your program on diskette, using the LIST command. Then RENUM uses that file to create a new file, also in LIST format. Because RENUM is written in BASIC, this process can take quite a while, perhaps 15 minutes for a long program. The second problem plagues all renumber routines — proper handling of statements like GOTO X, where "X" is a variable. RENUM ignores the implication of this kind of statement, whereas ideally it should warn you. The third problem is its poor user interface in such areas as error trapping and prompts. Obviously, it was written in a hurry. But this utility fills a long-standing need, and you might want it for just those occasions when it can really be a lifesaver."

REQUIRES:
24K RAM (for ATARI 810 diskette)
ATARI BASIC Language Cartridge
ATARI 810 Disk Drive

ORDER INFORMATION:
$14.95 diskette for ATARI 810
(Order No. APX-20011)

ISK FIXER (FIX)

y Mike Ekberg

ecommended for advanced
ystems programmers/Written in
achine language)

IX lets an advanced programmer get irectly at several important areas of a iskette. Depending on the circumances, FIX can sometimes help you cover some or all of your files from a crashed" diskette. FIX lets you: (1) splay directory entries, so that you know the exact entry for each file; (2) modify directory entries, so that you an control directory information; (3) ace sector chains through a file, looking for the end of the file or for a bad sector, so that you can verify the structure of a file; (4) check the allocation map, so that you can recover misallocated sectors; and (5) modify sector nks, so that you can control the file umber, sector byte count, and forard sector pointer for any sector on e diskette. This utility program is for n advanced systems programmer only. Its use requires a detailed understanding of disk structure.

Review Comments:

"FIX has been invalua[illegible] several occasions in 'salvaging' a destroyed diskette. Styled after the ATARI DOS menu structure, it has a fairly good user interface."

"You can do more harm than good with this powerful utility if you don't know what you're doing. It's a tool for an advanced user *only*."

"The only major limitation of FIX is its inability to examine and modify actual sector data."

REQUIRES:
24K RAM (for ATARI 810 diskette)
ATARI 810 Disk Drive

ORDER INFORMATION:
$19.95 diskette for ATARI 810
(Order No. APX-20010)

ARIABLE CHANGER

y Lane Winner

Recommended for advanced BASIC
rogrammers/Written in BASIC)

low often have you typed in a complete BASIC program and later wished ou'd called a variable by a different ame? Have you ever run out of RAM pace because you used lengthy variable names? Have you wanted to protect your program at times from being listed? If so, consider this utility. VARIABLE CHANGER changes a variable's name throughout your BASIC program, by modifying your program's internal symbol table. You can either change particular variable names, or you can tell the utility to change them all to the shortest possible length. This latter option helps you when you need to compress a program into the smallest possible space. (This is a good companion program to MASHER, described elsewhere in this section.) If you want to protect your program from curious eyes, you can also use this utility to convert all your variable names to the *same* non-printing character. Because the BASIC interpreter has already translated your variable names to an internal form, your program will still run, but no one will be able to read it by using the LIST command, and so another user would have difficulty trying to modify your program.

eview Comments:

This program is very useful for making general changes, conserving memory, and protecting your program. And it's quite fast, because it takes advantage of the unique structure of ATARI BASIC by modifying the names in the symbol table associated with a tokenized BASIC program instead of by modifying the actual program code."

"The power of this program makes unsuitable for a novice programme It's possible to make a real mess out your program if you're not careful."

"If you try to expand variable names t be much longer than they were orig nally, the expanded name might cause some program statements to exceed the maximum logical line length permitted by the Screen Editor, and yo won't be able to edit such lines in th future because the Screen Editor wi truncate them."

REQUIRES:
24K RAM (for ATARI 810 diskette)
ATARI BASIC Language Cartridge
ATARI 810 Disk Drive

ORDER INFORMATION:
$14.95 diskette for ATARI 8[illegible]
(Order No. APX-20012)

CHARACTER SET EDITOR

by Tandy Trower

(Recommended for intermediate-advanced programmers/Written in BASIC)

Many users know that an ATARI computer can change character sets, but few have taken advantage of this feature. With CHARACTER SET EDITOR you can create, edit, save, and load your own character sets, using any font you choose. It's especially useful for creating special graphics images and foreign language character sets. You use a joystick controller to set and clear the 64 points that can make up each character. When you're satisfied with a character, you store it on diskette and go on to the next one. The program also lets you modify a character set previously created and stored. You can incorporate your new character set into your programs with the aid of a simple loader routine included with CHARACTER SET EDITOR.

Review Comments:

"This utility gives you easy access to some of the advanced graphics potential of your ATARI computer. Intermediate and advanced users will think of many interesting applications for character graphics."

"The graphics techniques used in this program are quite pleasing."

"Some aspects of this utility could use improvement. For example, it displays an enlarged version of a character as you edit it, but it can't display the actual size until you've finished creating the character. This approach makes it hard to envision the finished pattern. It's also rather slow at displaying the character set changes because of the graphics techniques used. We've seen more advanced character set editors, but this one is usable."

REQUIRES:
24K RAM (for ATARI 810 diskette)
ATARI BASIC Language Cartridge
ATARI 810 Disk Drive
ATARI Joystick Controller

ORDER INFORMATION:
$14.95 diskette for ATARI 810
(Order No. APX-20017)

EXTENDED WSFN

by Harry Stewart

(Recommended for beginning-advanced programmers/Written in machine language)

Do you know someone who's curious about your ATARI 400/800 computer but has no programming knowledge to call on to try out your system? This program might be the answer. WSFN (Which Stands For Nothing) is an educational graphics language developed for teaching programming concepts to beginners. Picture a small robot turtle holding a pen in his mouth and sitting in the middle of your video screen. Now imagine you can command the turtle to do such things as move, turn, and raise and lower his pen. That's what WSFN is all about. WSFN programs consist of strings of one-letter commands like "F" for "forward" and "L" for "left turn". With simple instructions, users can write such standard programming structures as loops and subroutines. This version of WSFN is greatly extended compared to the original language, and it contains many advanced debugging, graphics, joystick, and mass storage features. Although you can do some fairly advanced graphics with WSFN (if you know what you're doing), it's meant to be a beginner's language. Also, because it's strictly a graphical system, it isn't suitable for developing applications programs.

Review Comments:
"This is a very comprehensive version of WSFN, with many advanced features. It can be a lot of fun to use and the graphics it generates can be dazzling. Also, this language is *fast*, executing faster than BASIC in most cases."

"Several bugs in this implementation make its use as an educational tool confusing at times. Because of time and staffing restrictions, this program hasn't undergone the extensive testing that any new language should. Some users may find WSFN's command language a bit cryptic, but it's not bad once you get the hang of it."

REQUIRES:
16K RAM (for cassette)
24K RAM (for ATARI 810 diskette)
ATARI 810 Disk Drive or ATARI 410 Program Recorder

OPTIONAL:
ATARI Joystick Controller

ORDER INFORMATION:
$16.95 cassette (Order No. 10026)
$19.95 diskette for ATARI 810 (Order No. APX-20026)

SUPERSORT

by Bob Fraser

(Recommended for BASIC *programmers/Written in machine language)*

SUPERSORT is a general-purpose, ultra high-speed sorting routine. For example, it can sort a thousand 30-byte names in less than 10 seconds (no, that's not a misprint)! And it can sort a thousand 1-byte items in less than two seconds. You can easily call SUPERSORT from your BASIC program. SUPERSORT loads itself into RAM as an AUTORUN.SYS file whenever you boot up a diskette containing SUPERSORT. Then you run your BASIC program as usual, storing in one long string the items you want to sort. To sort these items, you simply POKE in your record and key lengths and then execute a USR function. SUPERSORT sorts the entire string in ascending order by your specified key.

SUPERSORT can handle any record of less than 180 bytes, and it can process as many as 10,000 records, depending on your memory size. It requires the sort key, which can be between 1 and 180 characters, to begin each record. SUPERSORT uses page 6 in memory as a scratch pad and about 900 bytes of RAM for itself. It installs itself below BASIC at boot time. This program is a combination of C. Hoare's QUICKSORT and a standard insertion sort. The algorithm is described in Donald Knuth's *Art of Computer Programming*, vol. 3, p. 114. SUPERSORT includes the assembler editor source code to allow you to modify the program to fit your needs.

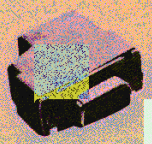
Review Comments:
"This sort is incredibly fast. If you've ever waited for hours for a BASIC sort, you'll appreciate this utility. Examples in the documentation make it easy to use."

"This utility is designed for use only with BASIC. You can modify it for other uses, but it will take some work. SUPERSORT does no error checking, so you must write your calling program carefully; otherwise, it will happily sort all of memory for you, including your program. Because it uses the AUTORUN.SYS feature, it can be awkward to use the RS-232 ports of an ATARI 850 interface at the same time you use SUPERSORT."

REQUIRES:
24K RAM (for ATARI 810 diskette)
ATARI 810 Disk Drive
ATARI BASIC Language Cartridge

OPTIONAL:
ATARI Assembler Editor Cartridge

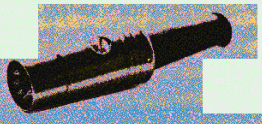
ORDER INFORMATION:
$17.95 diskette for ATARI 810 (Order No. APX-20030)



DE-9S WITH DE 51218 SHELL (controller plug)

$6.25 (Order No. APX-90001)

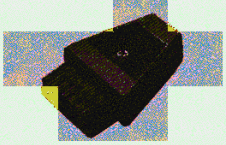
This connector is the best fit we've found for the front joystick ports of the ATARI 400/800 computers. Because you can program these ports for both input or output, they're perfect for many specialized interfacing applications. These 9-pin female connectors have solder-on, gold-plated contacts in a Nylon insulator. To allow the connector to mate more securely with the computer's port, we recommend gluing the connector together rather than using the screws provided.



5-PIN DIN CONNECTOR

$2.49 (Order No. APX-90002)

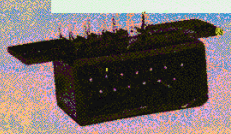
You can use this connector with the ATARI 800 computer's video plug to connect your computer to video monitors, or to run the sound through a stereo system.



13-PIN I/O PLUG

$3.95 (Order No. APX-90003)

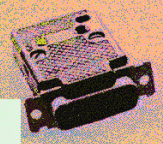
You can use this connector, custom-designed for ATARI personal computers, to build your own interface cables or devices.



13-PIN I/O SOCKET

$4.95 (Order No. APX-90004)

This 13-pin, board mounted connector with right-angle pins is the connector used inside ATARI computers and peripherals. You can use it to build your own peripherals, extension cables, and interfaces.



DA-15P WITH DA110963-2 SHELL (850 printer plug)

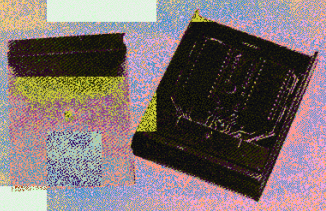
$5.95 (Order No. APX-90005)

Use this 15-pin, male connector to connect your ATARI 850 Interface Module to a compatible parallel printer. These connectors have solder-on, gold-plated pins in a Nylon insulator.

DE-9P WITH DE110963-1 SHELL (850 serial plug)

$5.49 (Order No. APX-90006)

Use this 9-pin,male connector to connect your ATARI 850 Interface Module to external RS-232 or current-loop devices. These connectors have solder-on, gold plated pins in a Nylon insulator.



2716 EPROM CARTRIDGE

$39.95 (Order No. APX-90007)

This kit contains the pre-assembled, socketed cartridge board along with all plastic and metal parts necessary to construct your own EPROM Left-side cartridge for the ATARI 400/800 Personal Computers. These boards can accept two Intel 2716 or TI 2516 2K EPROMs (not included), giving you a maximum capacity of 4K bytes. You must have access to 2716 EPROM programming equipment to use these cartridges, and your EPROMs must be 300 ns or faster. Making a cartridge is a project best suited to advanced hobbyists.

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Shipment. We'll normally ship your order by United Parcel Service (UPS). Because UPS doesn't deliver to P.O. box numbers, please use a street address on your order form. Also, please indicate an alternate method of shipment if UPS does not deliver to your area. Allow 2–3 weeks for delivery.

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